

NOTES AND NEWS

NEW DISTRIBUTIONAL RECORDS FOR WASHINGTON PLANTS.—While working on my master's thesis at Mount Rainier National Park in 1969 and 1970 I noted four species that have not been recorded from the area previously. Two of these, *Ivesia tweedyi* Rydb. and *Astragalus alpinus* L., have never been recorded from west of the summit of the Cascade Mountains. These species were found growing together in only one location in the northeast corner of the park. They were dominant in a small lithosolic community, firmly stabilizing the soil on a ridgetop that runs north and south. *Ivesia tweedyi* has been found previously in only Chelan, Kittitas, northern Yakima, and Stevens counties, Washington, and in Shoshone and Idaho counties, Idaho. *Astragalus alpinus* is a circumpolar species previously known in Washington only from Okanogan and Pend Oreille counties. Another species, *Trollius laxus* Salisb., was first found several years ago in an isolated valley in the park by Arthur E. Haines, a former park naturalist; he did not notice it to be widespread at that time. I have found it to occur throughout the northeast section of the park in moist and wet subalpine areas. Often it is found with the almost equally widespread *Ranunculus alismaefolius* Geyer, the last of the four species.

The park has been thoroughly studied by numerous taxonomists and plant collectors. It is possible that *Ivesia tweedyi* and *Astragalus alpinus* could have been overlooked because they occur in only one small, isolated locality. On the other hand, with their widespread distributions, it seems unlikely that *Trollius laxus* and *Ranunculus alismaefolius* would have been missed unless their introduction to the park had been within the last 25–50 years or their distribution has increased considerably during that time.

The present distributions of *Trollius laxus* and *Ranunculus alismaefolius* coincide closely with the increased distribution of elk (*Cervus canadensis*) in the moist subalpine meadows in the northeast part of the park. Elk are rapidly increasing and have been spreading in the park, particularly recently. Years ago an introduction of elk from Kittitas County was made near Enumclaw and elk have spread into the park from Yakima County for at least forty years. Both plant species also occur in these counties. *Ivesia tweedyi* is known from these same counties too, but is a viscid plant and undoubtedly is not a palatable species. On the other hand, *Trollius laxus* and *Ranunculus alismaefolius* grow lushly in moist areas and *R. alismaefolius* is often grazed. Seeds may also be transported on elk hooves. It will be interesting to note if the distributions of *Trollius laxus* and *Ranunculus alismaefolius* follow the present spread of elk into moist subalpine meadows of the park where neither has been known previously.—MARCIA J. HAMANN, Department of Botany, Washington State University, Pullman 99163.

REVIEW

A Flora of Tropical Florida. By ROBERT W. LONG and OLGA LAKELA. xvii + 962 pp., 125 line figures, 1 map and 1 plate of 5 portraits. University of Miami Press, Miami, 1971. \$29.50.

Tropical Florida as defined in this Flora is restricted to the three most southern counties of the peninsula: Collier, Dade, and Monroe. The area covered is 5082 square miles or approximately 9% of Florida. If comparisons are helpful, the area covered is a little more than $\frac{1}{2}$ as large as Connecticut and Rhode Island, almost 10 times as large as Marin County, California, somewhat more than 3.5 times as large as the area covered by California's Santa Cruz Mountains, or about 1.5 times as